

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-023261**Date Inspected:** 03-May-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** An Qing Xiang**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Umesh Gaikwad was present during the times noted above for observations relative to the fabrication of the Self-Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

This Quality Assurance (QA) Inspector observed the following work in progress:

TA YARD

OBG Seg 14W:

The Flux Cored Arc Welding (FCAW) process on weld joint no: SEG3020D-038 [Deck Panel (DP) diaphragm of DP 3172A to Floor Beam (FB) 3343A, Complete Joint Penetration (CJP) weld at Panel Point (PP) 128.3]. The welder is identified as 066695 and was observed welding in 2G position. ZPMC QC was identified as Mr. An Qing Xiang. The welding variables recorded by this QC appeared to comply with WPS: B-T-2232-ESAB.

The Shielded Metal Arc Welding (SMAW) process on weld joint no: SEG3020AH-003 [Side Panel (SP) 3144B to Edge Panel (EP) 3029A, CJP weld at PP127 to PP127.3]. The welder is identified as 037932 and was observed welding in 2G position. ZPMC QC was identified as Mr. An Qing Xiang. The welding variables recorded by this QC appeared to comply with WPS: B-P-2212-Tc-U4b-FCM-1.

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The SMAW process on weld joint no: SEG3020D-018 [Block out bottom plate sub assembly SA 3416A to FB 3342A, Fillet weld at PP128.3]. The welder is identified as 067942 and was observed welding in 4F position. ZPMC QC was identified as Mr. An Qing Xiang. The welding variables recorded by this QC appeared to comply with WPS: B-P-2114-FCM-1.

Repair welding of weld joint no: SEG3020\*-013 [DP 3168A to EP 3029A, CJP weld at PP 127 to PP 127.5]. The welder is identified as 037748 and was observed welding in the 4G position. Welding process was identified as SMAW. ZPMC QC was identified as Mr. An Qing Xiang. The welding variables recorded by this QC appeared to comply with WPS: 345-SMAW-4G(4F)-FCM-Repair-1. Repair welding was done as per Welding Repair Report (WRR): B-WR 20776 Rev-0.

Repair welding of weld joint no: SEG3020\*-014 [DP 3168A to EP 3029A, CJP weld at PP 128 to PP 128.3]. The welder is identified as 037748 and was observed welding in the 4G position. Welding process was identified as SMAW. ZPMC QC was identified as Mr. An Qing Xiang. The welding variables recorded by this QC appeared to comply with WPS: 345-SMAW-4G(4F)-FCM-Repair-1. Repair welding was done as per Welding Repair Report (WRR): B-WR 20776 Rev-0.

Repair welding of weld joint no: SEG3020AQ-025 [Top AP PL3591A to SP 3144B, CJP weld in between PP 125 to PP126]. The welder is identified as 045246 and was observed welding in the 4G position. Welding process was identified as SMAW. ZPMC QC was identified as Mr. Zhu Lin. The welding variables recorded by this QC appeared to comply with WPS: 345-SMAW-4G(4F)-FCM-Repair-1. Repair welding was done as per Critical Welding Repair (CWR) Report: B-CWR 2923 Rev-1.

During random in process inspection this QA Inspector observed that ZPMC personnel was performing repair excavation by carbon air arc gouging on the weld joint SEG3020T-165 [joining Edge Beam (EB) 3059A to FB 3319A at PP 125.5]. See attached photograph for further details.

During random in process inspection this QA Inspector observed that ZPMC personnel was performing gas cutting on the floor beam 3317A (FL3 area) at PP 125. See attached photograph for further details.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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## Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

## Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang : 15000422372, who represents the Office of Structural Materials for your project.

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**Inspected By:** Gaikwad,Umesh

Quality Assurance Inspector

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**Reviewed By:** Peterson,Art

QA Reviewer